



Sub-Miniature Pressure and Temperature Transducer



Features

- ▶ Pressure & temperature combined
- ▶ Sub miniature and light sensor
- ▶ Temperature output
- ▶ Built-in electronic 0.5-4.5Vdc

Applications

- ▶ Automotive - on vehicle
- ▶ Aerospace
- ▶ Test benches
- ▶ Automotive

The PCM120 series pressure sensors allow a combined pressure and temperature measurements at a same location. Wetted parts being all titanium, they are compatible with all common and hostile pressure media used in aerospace and automotive. Miniature dimensions, low mass and ruggedized design make PCM120 series pressure sensors well adapted to embedded applications on vehicles, aircrafts, missiles, satellites, etc. The pressure transducer utilizes EFE thin film technology and a platinum RTD senses media temperature. The pressure and temperature devices are designed to operate independently. Output for pressure is an amplified 0.5-4.5Vdc while temperature signal is directly the one from PT1000 sensor.

Technical specifications

Pressure ranges (FS)	-1/+4bar ; -1/+9bar ; 5bar ; 10bar ; 20bar ; 40bar ; 70bar ; 250bar ; -14.5/+60PSI ; -14.5/+140PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1500PSI ; 3000PSI
Type	Absolute ; Gage
Type (for ranges > 40 bar)	Sealed Gage
Safe overload	150% FS
Power supply	5Vdc \pm 10mV
Consumption	< 10mA
Insulation	> 1000 M Ω ms under 50Vdc at ambient temperature
Output at -100%FS (only for \pm range)	0.5Vdc
Output at 0%FS (except ranges \pm)	0.5Vdc
Output at 100%FS	4.5Vdc
Zero and sensitivity settings tolerances	\pm 50mV
Thermal probe	PT1000 Class A - direct output from the probe (Ohms) Option : PT100 Class A - direct output from the probe (Ohms)



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Technical Specifications

Non linearity and hysteresis combined	$\pm 0.25\%$ FS Option : $\pm 0.1\%$ FS
Signal bandwidth	1000Hz @ -3dB Option : Special Adjustment up to 3000Hz @ -3dB
Compensated temperature range	0 to $+60^\circ\text{C}$ Option : -25 to $+85^\circ\text{C}$; -25 to $+125^\circ\text{C}$; -40 to $+125^\circ\text{C}$
Operating temperature range	-40 to $+125^\circ\text{C}$
Combined thermal zero & sensitivity shifts	$\pm 0.02\%$ FS/ $^\circ\text{C}$ Option : $\pm 0.01\%$ FS/ $^\circ\text{C}$
Constant acceleration in linear vibrations	$\pm 0.02\%$ FS/g (frequency 20-2000Hz, 50g max.)
Mechanical shock	100g $\frac{1}{2}$ sinus 1ms
Electrical protection	Protected against polarity inversion
EMC protection	Compliant to EN61000
Electrical connection	AWG26 Shielded Teflon Cable Ø3.4mm ± 0.2 , 5 wires
Mechanical connection	M10x1-4h male with thermal probe ; M8x1-6g male with thermal probe
Material(s) of wetted parts	Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH
Weight	10g without cable
Enclosure protection	IP65 for absolute & sealed gage version

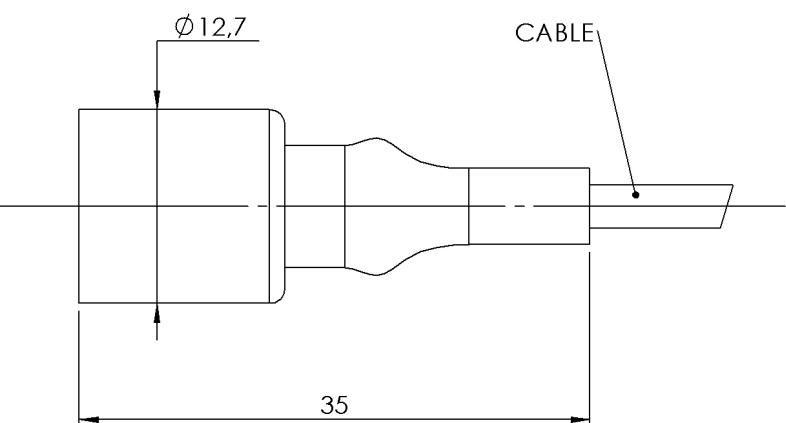
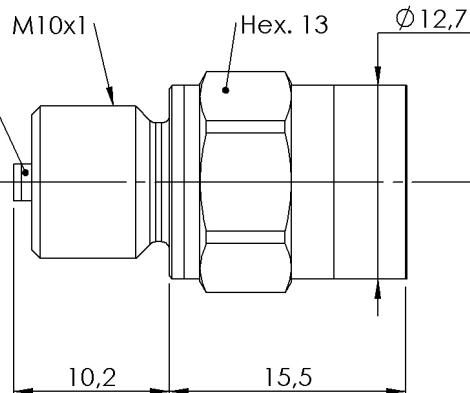
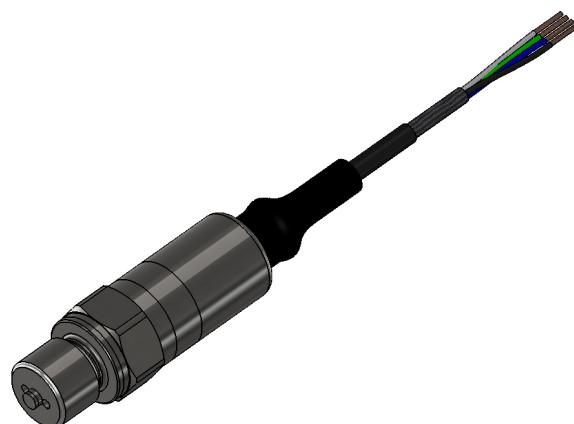
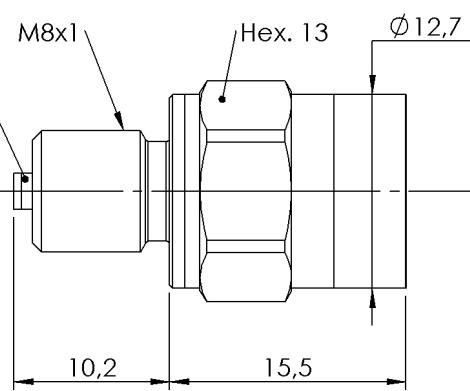
Codification

Sub-Miniature Pressure and Temperature Transducer	PCM12	3	S	5bar	A	29	09/1m	A	1	1	B
Output Signal	0.5-4.5Vdc regulated power supply		3								
Material	Stainless Steels			S							
Range	Example			5bar							
Type	Absolute				A						
	Gage				G						
	Sealed Gage				SG						
Mechanical connection	M8x1-6g male with thermal probe					29					
	M10x1-4h male with thermal probe					30					
Electrical connection	AWG26 Shielded Teflon Cable Ø3.4mm ±0.2, 5 wires						09/1m				
Compensated temperature range	0 to +60°C							A			
	-25 to +85°C							B			
	-25 to +125°C							C			
	-40 to +125°C							D			
Non linearity and hysteresis combined	±0.25% FS							1			
	±0.1% FS							2			
Combined thermal zero & sensitivity shifts	±0.02% FS/°C							1			
	±0.01% FS/°C							2			
Options	Special Adjustment up to 3000Hz @ -3dB								B		
	PT100 Class A - direct output from the probe (Ohms)								T		



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POSITION DE LA SONDE DE TEMPERATURE
TEMPERATURE PROBE POSITIONPOSITION DE LA SONDE DE TEMPERATURE
TEMPERATURE PROBE POSITION

DIMENSIONS : mm

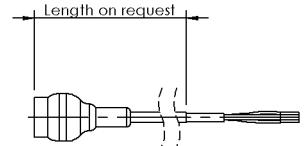


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5 CONDUCTOR TEFLON CABLE

PRESSURE & TEMPERATURE OUTPUT	CONDUCTOR
+ EXCITATION	RED
+ SIGNAL (PRESSURE)	GREEN
0 VOLT	BLACK
PT PROBE	WHITE
PT PROBE	BLUE
SENSOR HOUSING	SHIELD



Agent :



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